🡪🡪🡪Node Js Tutorial – code step by step

<https://youtu.be/zaLfOjNEOaQ?list=PL8p2I9GklV456iofeMKReMTvWLr7Ki9At>

🡪Node JS in Hindi #3 Install node , NPM

🡪🡪🡪

🡪npm -v

🡪node -v

🡪node 🡪enter

console.log(“hello world”);

🡪jab bhi koi statement return nhi krti 🡪 undefined milta hai

kuch return nhi ho rha hai esliye undefined aata hai

🡪var x = 10; var y = 20;

console.log(x + y );

console.warn(x+y);

🡪make folder(node\_tut) 🡪 index.js 🡪console.log(“hello world”);

Run on Cmd – node . \index.js

🡪same javascript code we need to write for node js

🡪🡪🡪node js me hum import, export use nhi kr skte 🡪 jaise hum javascript, react me use krte hai

🡪use can use like this !!!

Folder(node tut) 🡪 index.js(file)

🡪App.js

🡪files import export

🡪app.js

module.exports = {

X : 10,

Y : 20,

Z :function(){

Return 10;

}

}

🡪Index.js

const app = require(‘./app’);

Console.log(app);

Console.log(app.x);

Console.log(app.y);

Console.log(app.z());

🡪🡪🡪Core Modules

🡪module 🡪 by default feature har ek programming language ke hote hai….

🡪two types of module

Core Module 1.) Global 2.) Non Global

External module

Core Modules 🡪har ek programming language ke undar ek basic feature phle se hi hote hai jaise ..this is called core module…data base se connect krna, files vagear create krne ke liye, code ko process krne ke liye, api call krne ke liye or.. core module.. kyuki ye basic se hi hamare programming language me bane hote hai.

Index.js 🡪core module 🡪console.log(“hello world”);

🡪File system, buffer, http, api calls, database connections, these are core module.

🡪Global, Non Global Module

Global aise module hote hai jinko import krne ki jarurat nhi…

🡪Global and non Global

Glaobal Module 🡪

Global aise module jinhe import krne ki jarurat nhi hoti.

Console.log(“hello world”); //Global module

Non Global Module 🡪 jo module hume import krne pdte hai non global module.

Index.js 🡪

const fs = require(‘fs’);

console.log(“code step by step”);

fs.writeFileSync(“hello.txt” , “hello world”); //write this code to create files.

🡪output

Hamari file create ho jayegi 🡪 hello.txt

🡪jo module hume import krne hote hai 🡪 non global module hote hai

🡪jo import nhi krne padte wo hamare 🡪 Global module hote hai 🡪 console.log

🡪To check directories

Const fs = require(‘fs’);

Console.log(“directories name”, \_\_dirname);

Output 🡪 will show directories name 🡪 node .\index.js

C:\Users\HP\Desktop\node-tut

🡪To check filename

const fs = require(‘fs’);

Console.log(“directories name”, \_\_filename);

Output 🡪 to check filename

C:\Users\HP\Desktop\node-tut\index.js

/////or

const fs = require(‘fs’).writeFileSync;

fs(“abc.txt”, abc);

🡪 Create Server 🡪 make basic server output on browser

🡪Make basic server output on browser

🡪function as parameter in node

🡪arrow function

🡪get output on browser

🡪index.js🡪

const http = require(‘http’);

http.CreateServer((req, resp) => {

resp.write(“hello this is anil sidhu”);

resp.end();

}).listen(4500);

Output 🡪 node .\index.js

Hello this is anil sidhu

🡪we can also write like this

resp.write(“<h1>hello this is anil sidhu</h1>”);

🡪const http = require(‘http’);

🡪http module 🡪 node js ke undar server ki request or response ko handle krta hai.

🡪http.CreateServer() 🡪 pure ke pure function ko as a parameter lega.

http.CreateServer().listen(4500);

🡪const http = require(‘http’);

http.CreateServer( (req, res) => {

}).listen(4500);

Req , request kya karega lets see ki hmne form vagera submit kra hai 🡪 or urls se koi parameter vagera bheje hai 🡪 unko node js ke undar access krte hai

Res – yha se jo send krna hota hai , wo hota hai response…yha se client ko kuch na kuch response de rhe hai…..

🡪Index.js

const http = require(‘ http’);

http.CreateServer((req, res) =>{

resp.write(“hello this is anil sidhu”);

resp.end();

}).listen(4500);

🡪or we can also write like this 🡪 index.js

const http = require(‘ http’);

Function dataControl(req, res){

Res.write(“hello this is anil sidhu”);

Resp.end();

}

http.createServer(dataControl).listen(4500);

http 🡪 req or res ko handle krtsa hai

🡪all about package.json

🡪cmd 🡪 npm init 🡪

🡪eske undar package manage hote hai 🡪 browser(npm colorful package) 🡪 npm I colors 🡪 folder create ho jayega node module ke name se

🡪package.json 🡪 sare dependencies rhte hai 🡪

🡪node module

🡪package.json

🡪package.lock.json

node js 🡪 Single threaded 🡪 ek time me ek hi command run krti hai 🡪

🡪make basic server output on browser

🡪Make basic server

🡪Function as a paramtere in node

🡪Arrow function

🡪Get output on browser

🡪Index.js

🡪const http = require(‘ http‘);

http 🡪 node js ke undar server ki request or response ko handle krta hai.

http.createServer() 🡪 yahi ek function hota hai jo ki pure function ko hi as a parameter lega.

Htttp.createServer().Listen(4500);

Test(a,b){

}

Test(10, 20);

🡪Parameter number ki jagah function bhi pass kr skte hai.

Ye jo createServer() function hai, ye pura ka pure ek function as a parameter leta hai. Bahut se function hai jo . function as a parameter leta hai.

Const http = require(‘http’);

http.createServer((req, resp) =>{

resp.write(“ hello this is anil sidhu”)

resp.end();

}).listen(4500);

🡪req 🡪 req krega humne form vagera submit kri 🡪urls se parameter vagera bhejhte hai 🡪 Unko node js ke undar aceess krta hai 🡪 yha se jo send krna jo hota🡪 🡪 wo hota hai response 🡪 yha se client ko kuch na kuch response de rhe hai🡪

Yha se directly response send krenge abhi ke liye..yha se kuch send krna hota hai🡪

Wo hota hai response🡪yha se client ko kuch na kuch response de rhe hai 🡪 response send kr rhe 🡪 resp.write(“hello this is anil sidhu”);

🡪response ko end bhi krna hota hai. Otherwise node js ko pta nhi chlega mujhe stop kha pe krna hai.

🡪resp.end();

🡪simplify code

function dataControl(req, resp){

resp.write(“hello this is anil sidhu”);

resp.end()

}

http.createServer(dataControl).listen(4500);

🡪convert. in arrow function

const http = require(‘http’);

const dataControl = (req, resp) =>{

resp.write(“hello this is anil sidhu”);

resp.end();

}

http.createServer(dataControl).listen(4500);

All about package.json

What is package file

Install external package

Package.json 🡪 ye hamre project ki detail rkhti hai… coding se related 🡪jaise hamare projects ka version kya hai🡪 uska name kya hai🡪 uski git repository kya hai 🡪 uske undar koun koun si command use ho rhi hai 🡪 uske undar koun koun se package dal rhe hai 🡪 jab ek project bnate hai to usme bahut sare projects bna rkhe hai 🡪 validation ke liye hmne dal liya 🡪 kuch console logger wagera dal liya data base connection ke liye 🡪 mango db 🡪

Mysql 🡪 external package wo sare ke sare kaise manage hote hai 🡪 wo hote hai 🡪 package.json me manage hote hai

Kaise project build bnati hai

Kaise project run krni hai

Command run krni hai

Ye sare package.json me hoti hai

Package.json hamare projects ki details rakhti hai

Coding se related details rkhti hai

Index.js

Console.log(“package.json”);

npm init 🡪 enter 🡪 package.json file ban jayegi 🡪

package.lock.json 🡪 package ki detail rkhera

node js single threaded hai ya multi threaded

node js single threaded hai 🡪 ek time me ek hi command run krti hai

multi threaded me ke sath 🡪 4,5 command ko ek sath run kr skti hai

small challage for u

🡪what happens if the node\_module folder is deleted

🡪correct way to push data on git

🡪index.js

const colors = require(‘colors’);

console.log(‘package’, Red);

🡪output🡪 node .\index.js

Package(red color me hoga);

🡪 node js chalk package 🡪 install 🡪 import 🡪 use

🡪node module galti se delete ho gya 🡪 npm install

🡪node\_module ke bahar ek file bnani hai 🡪 .gitignore 🡪 github me push krne ke liye 🡪 .gitignore

🡪.gitignore file 🡪 /node\_modules

nodemon time saving module

-----------------------------------------

es package ka use krke bahut sara time save kr skte hai 🡪 sare project me time save krne ke liye use kiya jata hai 🡪

index.js

console.warn(“try nodemon with node js”);

🡪command run krne ke bad ye band ho gyi

ab kuch bhi change kiya code me 🡪 ab humko esko phir se run krna pdega

har bar jitni code me change krenge 🡪 agar yha par node command use kr rhe hai 🡪 again and again run 🡪 esse hamara time waste hota hai

abhi to thik ek line ka code likha agar api bna rhe 🡪 usko test kr rhe 🡪 us time me complex api 🡪 database se connectivity ho chuki hai🡪 bar bar aisa check krenge to bahut time hai ­🡪esliye time save krne ke liye nodemon use krte hai 🡪 nodemon node js ke project ko continuesly run krta hai 🡪 bar bar node js ko run krne ki jarurat nhi..

🡪installation nodemon 🡪 nodemon documentation 🡪 cmd 🡪 npm I nodemon -g

to run 🡪 folder directories 🡪 nodemon .\index.js

ab code me kuch bhi change krenge to apne app run hoga 🡪 time saving

interview question 🡪 node js 🡪 async language 🡪 node js single threaded

sync 🡪 lets see 3 4 syntax run kr di 🡪 to wo sync me chlenge 🡪 1st, 2nd, 3rd, 4th

🡪 async 🡪 if second syntax is taking time for fun 🡪 will execute next one 🡪 then 2nd one will execute 🡪wait nhi kr skti kisi bhi script ka

make a simple api 🡪 simple and basic api

🡪make a server

🡪create header and api body

🡪create an api with static data

🡪put data in api file

🡪index.js🡪

-----------------

const http= require('http');

const data = require('./data');

http.createServer((req,resp)=>{

resp.writeHead(500,{'Content-Type':'application\json'});

resp.write(JSON.stringify(data));

resp.end();

}).listen(5000);

Data.js

const data=[

    {name:'anil',mail:'anil@test.com'},

    {name:'sam',mail:'peter@test.com'},

    {name:'peter',mail:'peter@test.com'}

]

module.exports=data;

Output 🡪 nodemon ./index.js

<https://github.com/anil-sidhu/node-js>

🡪index.js

http moduke ko import krna hota hai 🡪 whi hamri api bnane me help krta hai 🡪 req, resp ko yhin wala package handle krta hai

const http = require(‘http’) ;

http.createServer((req, resp) => {

}).listen(6000);

run 🡪 nodemon .\index.js

response send krenge uske liye resp.writeHead() 🡪 data send kr rhe hai 🡪

Resp.writeHead(200, {‘Content-Type ’ : ‘application/json’});

Body ho jayegi 🡪 resp.write(JSON.stringyfy({‘name ’ : ‘anil sidhu’}, ‘email’ : ‘anil@tcs.com’}));

Resp.end()

request leni hai user se , react,angular,vue se tab use krte hai 🡪 request

index.js

const http = require(‘http’);

http.createServer((req, resp) =>{

resp.writeHead(200,{‘Content-Type’ : ‘application\json’})

resp.write(JSON.strigyfy({name : “anil sidhu”, ‘email’ : ‘anilsidhu@tcs.comm’})));

resp.end();

} ).listen(5000);

Output 🡪 {‘name’ : ‘anil sidhu’, ‘email’ : ‘anilsidhu@tcs.com’}

api me postman attach postman

Data ko alag se file me rakhu 🡪 or kuch or data add kru 🡪 hotchpauch

Data.js

const data = {‘name’ : ‘Monija’, email : ‘monika@gamil.com’};

index.js

const http = require(‘http’);

const data = require(‘ ./data’);

http.createServer((req, resp) =>{

resp.writeHead(200, {‘Content-Type’ : ‘application/json’});

resp.write(JSON.stringyfy(data));

resp.end();

}).listen(4000);

🡪server node js ke sath me

🡪header and api ki body bnanni hai

🡪create an api with static data

🡪put data in another file.

🡪data dusri file me put kr denge. So alag file me dikhe.

🡪or api ka code alag file me dikhe

🡪create server

🡪response ka header add krna hai

🡪🡪 first parameter(response ka code)

🡪🡪 second parameter🡪 jis type ka hum data send krenge🡪content type /json

Uske bad body likhni hai wo likh skte hai

then response ko end krna hai

data.js

const data = {

‘name’ : ‘anil sidhu’,

‘email’ : ‘anil@tcs.com’

};

module exports = data;

lets see hume kuch or user add krne hai 🡪 multiple user to object ko array ke undar lena pdta hai

const data = [

{name : ‘anil’, email : ‘anilsidhu@tcs.com’, contact : ‘999999’},

{name : ‘anil’, email : ‘anilsidhu@tcs.com’, contact : ‘1234’},

{name : ‘anil’, email : ‘anilsidhu@tcs.com’, contact : ‘1234’}

]

200🡪ok

201🡪created

404🡪page data nhi milta

500 🡪server me hamara error hai

12….🡪Getting input from command line

set input from command line

create file with input

delete the file with input

index.js

console.log(“code step by step”);

run 🡪node index.js 🡪output 🡪 code step by step

ab maine node js ke sath me kuch extra parameter pass kr diya

node index.js 100 anil 🡪 ye jo input hai usko node js ke undar use kr paye 🡪 abhi kuch nhi hoga normal output hai whi chlegi 🡪 100 anil jo hai 🡪 esi ko hum get krenge

index.js

console.log(process);

process ek object hota hai jiske undar almost sab kuch hota hai node js ka 🡪run krne me kitna sari chige print ho jayega.

Console.log(argument.argv); 🡪 ye yha pe 2 properties de di

🡪 two input

🡪first 🡪 node js ki hamari file save hai wo 🡪

🡪second 🡪 jaha se hum esko run kr rhe hai wo 🡪

🡪node index.js hello

🡪ab 3 input aa gya

🡪first-properti, second properties, hello

🡪 Console.log(argument.argv[2]); 🡪 as an array

🡪scenario 🡪add/remove🡪 name🡪text

index.js

to create file 🡪 we need file system module🡪jo ki node js ke undar inbuild hota hai

const fs = require(‘fs’);

const input = process.argv;

fs.writeFileSync(input[2], input[3]);

1st 🡪 input[2] 🡪 file ka name

1st 🡪 input[3] 🡪data jo kuch hum enter krna chahte hai

Run 🡪 node index.js apple.txt ‘this is a fruits’

Output 🡪 jaise hi enter kiya apple.txt file create ho gyi

🡪and text 🡪 this is a fruit

const fs = require(‘fs’);

const input = process.argv;

fs.writeFileSync(input[2], input[3]);

🡪scenorio 🡪 ab esko hum jahte hai 🡪 add bhi kr pau or remove bhi kr pau 🡪

Const fs = require(‘fs’);

Const input = process.argv;

Fs.writeFileSync(input[2], input[3]);

If(input[2] == ‘add’){

Fs.writeFileSync(input[3], input[4])

} else if (input[2] == ‘remove’){

Fs.unlinkSync( input[3])

}

else{

console.log(“invalid output”);

}

Run 🡪node index.js add orange.txt “this is color and fruit”; 🡪 enter 🡪

Output 🡪 orange.txt 🡪 name se file ban gyi🡪 or text 🡪 this is color and fruit

lets see ab file ko remove krna chahte hai

run 🡪 node index.js remove orange.txt 🡪 enter 🡪 hamara orange.txt file remove ho jayega

Node JS in Hindi # 12 Getting input from command line

13…Display file list from folder

🡪create file and display those file in console

🡪show file list

🡪make file in a folder

🡪use path module

🡪get filename and print

Node-tut 🡪node-module, index.js, package.json, package.lock.json, files

🡪index.js ke sath files name ka folder create krte hai

Scenario🡪 files 🡪 command line ke through create krte hai 🡪file create krna 🡪or read krna bhi sikh jaye.

Index.js

Const fs = require(‘fs’);

fs 🡪 file system 🡪 ye file system module hai 🡪 node js ka core 🡪 esko install krne ki jarurat nhi hoti 🡪 node js by default deta hai esko

🡪 Const fs = require(‘fs’);

fs.writeFileSync(‘apple.txt’, ‘this is apple file’);

Run 🡪 node .\index.js 🡪 apple.txt 🡪 file create ho gyi

Loop me file create 🡪 ek sath 7, 8 file create krna chahte hai

Esko file module ke sath 🡪 path module hota hai uske sath use krenge 🡪

Index.js

const fs = require(‘fs’);

const path = require(‘path’);

Now path get krte hai

const dirPath = path.join(\_\_dirname); 🡪 current directory ka path

console.warn(dirpath);

run 🡪node .\index.js

output 🡪 directories ka path mil gya

const dirPath = path.join(\_\_dirname, ‘files’);

output🡪 ab hume files ke name se output mil gyi🡪path aa gya 🡪ab hume files ko create krmni hai 🡪

const fs = require(‘fs’);

const path = require(‘fs’);

const dirPath = path.join(\_\_dirname, ‘files’);

for(i = 0; i<5; i++){

fs.writeFileSync(dirPath + ‘ /hello’ + i + ‘.txt’ , ‘a simple test file’);

}

output 🡪 node .\index.js

🡪files

🡪hello0.txt

🡪 hello1.txt

🡪 hello2.txt

🡪 hello3.txt

🡪 hello4.txt

🡪ab es file ko read krke list

const fs = require(‘fs’);

const path = require(‘fs’);

const dirPath = path.join(\_\_dirname, ‘files’);

fs.readdir(dirPath, (err, files) => {

console.log(files);

})

run 🡪 node .\index.js

output🡪

hello0.txt

hello1.txt

hello2.txt

hello3.txt

hello4.txt

as an array mili 🡪 single single files chahiye to

const fs = require(‘fs’);

const path = require(‘fs’);

const dirPath = path.join(\_\_dirname, ‘files’);

fs.readdir(dirPath, (err, files) => {

files.forEach((item) => {

console.log(item);

})

})

run 🡪 node .\index.js

hello0.txt

hello1.txt

hello2.txt

hello3.txt

hello4.txt

next lecture read 🡪 ek files ke undar ka data kis tarike se read kr skte hai 🡪

🡪next video me data ko web page 🡪 api 🡪 ke undar bhi lekar jayenge4

14…  Asynchronous Programming Language

🡪crud with file system

🡪make file

🡪read file

🡪update file

🡪rename file

🡪delete file

🡪🡪🡪🡪🡪

|  |
| --- |
| Const fs = require('fs'); |
|  | const path = require('path'); |
|  | const dirPath= path.join(\_\_dirname,'crud'); |
|  | const filePath = `${dirPath}/apple.txt`; |
|  | // fs.writeFileSync(filePath,'this is a simple file'); |
|  | // fs.readFile(filePath,'utf8',(err,item)=>{ |
|  | // console.log(item); |
|  | // }) |
|  | // fs.appendFile(filePath,' for fruits',(err)=>{ |
|  | // if(!err) console.log("file is updated") |
|  | // }) |
|  | // fs.rename(filePath, `${dirPath}/fruit.txt`,(err)=>{ |
|  | // if(!err) console.log("file name is updated") |
|  | // }) |
|  |  |
|  | fs.unlinkSync(`${dirPath}/fruit.txt`); |

🡪🡪🡪🡪🡪

 15 Asynchronous Programming Language

🡪synchronuous 🡪in synchronuous operation tasks are performed one at a time.

🡪asynchronuous 🡪in asynchronuous, second task do not wait to finish first .

example 🡪

console.log(“start execution…… ”);

setTimeOut(() =>{

console.log(“logic exe….”);

}, 2000);

console.log(“complete execution…… ”);

output 🡪 start execution……

complete execution……

logic exe….

Example 🡪

let a = 10;

let b = 0;

setTimeOut(() =>{

b = 20;

}, 2000);

console.log(a+b);

Output 10🡪 drawback

16. 🡪   Handle Asynchronous Data

Example 🡪

let a = 10;

let b = 0;

setTimeOut(() =>{

b = 20;

}, 2000);

console.log(a+b);

Output 10🡪 drawback

To handle asynchronous operation use promises

Using promises

Let a = 10;

Let b= 0;

Let waitingData = new Promise((resolve, reject) => {

setTimeOut(() => {

resolve(30);

}, 2000)

})

waitingData.then((data) =>{

b = data;

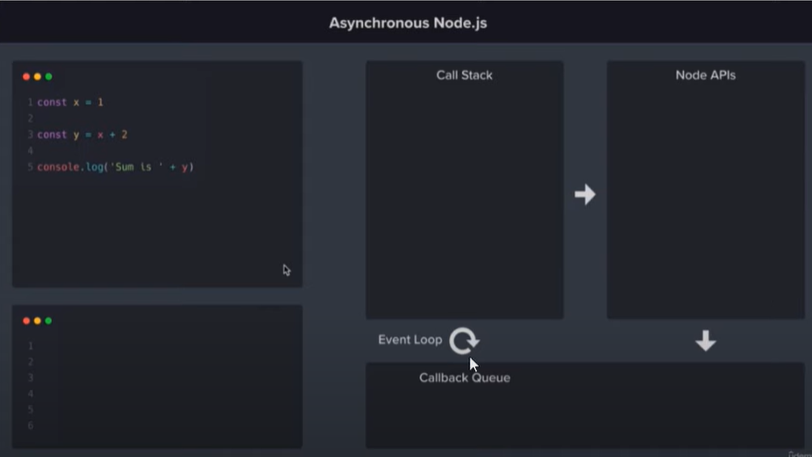
console.log(a+b)

});

Output –> 50

🡪17.   how node js works 🡪 architechture🡪callstack  
important topics

🡪callstack 🡪 node api 🡪 callback queue 🡪



<https://youtu.be/mGVFltBxLKU?list=PL8p2I9GklV456iofeMKReMTvWLr7Ki9At>

example 🡪

🡪console.log(“starting up ”);

🡪setTimeOut(() =>{

console.log(“2 second log”);

}, 2000) ;

🡪setTimeOut(() =>{

console.log(“0 second log”);

}, 0) ;

🡪console.log(“finishing up”);

Output 🡪 starting up

finishing up

0 second log

2 second log

Important Important Important Important

18. Express js Introduction

Important Important Important Important

Api

Route

Middle ware

Request handling 🡪 get, post, put, delete

Web pages

Css integrate

https://expressjs.com/

<https://www.npmjs.com/package/express>

🡪 npm i express

🡪what is express js

🡪install

🡪make example with express js

🡪index.js

🡪cmd command 🡪 npm install express 🡪 ek package package.json ke undar install ho jayega🡪package.lock.json

🡪index.js

//abhi about us page, contact us page , help, home page

const express = require(‘express’);

const app = express();

app.get(‘ ’, (req,res) => {

res.send(‘hello this is home page’);

})

app.get(‘ /about’, (req,res) => {

res.send(‘hello this is about page’);

})

App.listen(5000);

Run 🡪 node .\index.js

Output🡪localhost:5000

Hello, this is home page

localhost:5000/about

Hello, this is about page

//get method routes provide krte hai 🡪 ye route get bhi ho skte hai🡪post bhi ho skte hai ye 🡪

//req 🡪 aa kya rha hai 🡪 ye kab use hota hai 🡪

//res jo hum send krenge yha se

🡪🡪🡪

Refer github pages

const express = require('express');

const app = express();

app.get("", (req, resp) => {

console.log(req.query.name)

resp.send("Welcome,"+req.query.name);

});

app.get("/about", (req, resp) => {

resp.send("Welcome, This is a About Page");

});

app.get("/help", (req, resp) => {

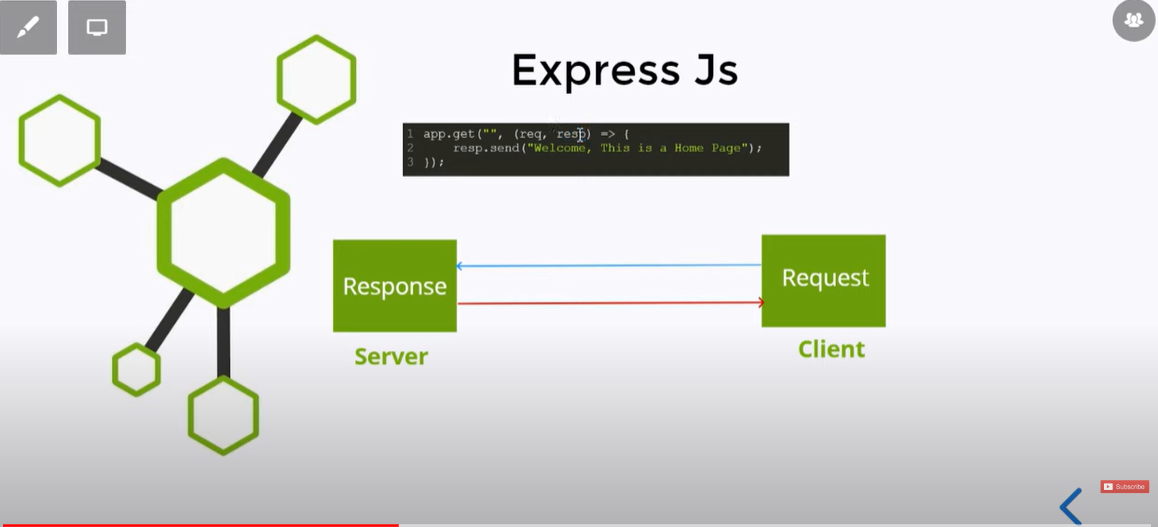
resp.send("Welcome, This is a Help Page");

});

app.listen(5000);

🡪🡪🡪

19.  19 Routing Params - Request and Response



🡪client hamesha request krta hai

🡪server hamesha response deta hai🡪 node js hamara ek server hai 🡪 usne response diya

🡪es example me hmne koi request kri nhi 🡪parameter aa rha but 🡪 req parameter humne use nhi kiya 🡪 no need to use both parameter 🡪 kuch specific data hmare pass nhi aaya client side se 🡪agar hume kuch data send krna hota 🡪name, id kuch send kr rhe hote – to eska req 🡪 req parameter ka use kr rha hota 🡪 abhi req ke undar kpoi data nhi aaya hai 🡪 to esliye server by default samajta hai 🡪 ha mere pass bas ek request aa gyi 🡪or jo bhi function likha hai usko as a response throw kr do 🡪esme hmne kuch bhi deta send nhi kra 🡪browser ka url dala 🡪 uske according yha par deta de diya 🡪home ke liye home🡪about ke liye about wala page 🡪 ye jo req or res hai 🡪 server or client ko interact kran eke liye basically use me aate hai 🡪

Jab bhi client se deta aayega wo req wale parameter uske undar aayega or

Jo bhi deta send krenge wo res ke undar

Example 🡪 es tarah se deta ko send kr rhe

Localhost:5000?name = anil 🡪 esko get krke dikao 🡪 ye req ko get krke dikao

const express = require(‘express’);

const app = express();

app.get(“ “, (req, res ) => {

console.log(“ data send by browser”, req.query);//output: localhost : 5000?name= monika

//req.query//output

//data send by browser {name : anil}

//req.query.name

//output : data send by browser anil

//

res.send(“welcome this is jome page” + req.query.name );

});

app.get(“ /about“, (req, res ) => {

console.log(“ data send by browser”, req.query);//output

res.send(“welcome this is about page”);

}) ;

App.listen(5000);

🡪🡪🡪

const express = require('express');

const app = express();

app.get("", (req, resp) => {

console.log(req.query.name)

resp.send("Welcome,"+req.query.name);

});

app.get("/about", (req, resp) => {

resp.send("Welcome, This is a About Page");

});

app.get("/help", (req, resp) => {

resp.send("Welcome, This is a Help Page");

});

app.listen(5000);

🡪🡪🡪

20. Render HTML and JSON

Render html and json

How html tags

Show json data

Link pages

Html and json data display

Json data api ke liye important

Html data website ke liye important

Ek page se dusre page kis tarah se link kr skte hai

Html data ko render

const express = require(‘express’);

const app = express();

app.get(“ ”, (req, resp) => {

resp.send(<h1> welcome to home page</h1> );

} )

app.get(‘ /about’, (req, res) => {

resp.send(`

< input type = “text” placeholder = “user name”/>

<button> click me </button>

`);

})

App.listen(5000);

🡪json data ko render krna hai

🡪example

app.get(“/help”, (req, res) => {

resp.send({

name : “anil”,

email :”anil@gmail.com”

})

} )

🡪Output 🡪

{“name” : “anil”, “email” : “anil@tcs.com”}

Ek se jyada user ka data

app.get(“/help”, (req, res) => {

resp.send(

[

{

name : “anil”,

email :”anil@gmail.com”

},

{

name : “monika”,

email :”monika@gmail.com”

},

])

} )

Output 🡪

[

{

“Name1” : “anil”,

“email” :”anil@gmail.com”

},

{

“Name” : “monika”,

“email” :”monika@gmail.com”

}

]

If we want to go one page to another page

Home to about us page

app.get(“ ”, (req, resp) => {

resp.send(`

<h1>welcome to home page </h1>

<a href = “ /about“ /> go to about page</a>

`)

})

🡪output 🡪localhost:5000/about

Input text box 🡪 click button

interview question 🡪 parameter se value kis tarike se get kroge

localhost:5000/about?name = anil

🡪example 🡪 app.get(“/about”,(req, res) => {

resp.send(`

< input type = “text” placeholder = “user name” value = “${req.query.name}” />

<button>click me<button/>

<a href = “/ ”>go to home page <a/>

`)

})

localhost:5000/about?name = sam

output 🡪 input field me 🡪 sam value aayega

es tarah se query parameter se deta ko le skte hai

🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪

const express = require('express');

const app = express();

app.get("", (req, resp) => {

resp.send(`

<h1>Welcome to Home page</h1>

<a href="/about">Go to About page</a>

`);

});

app.get("/about", (req, resp) => {

resp.send(`

<input type="text" placeholder="user name" value="${req.query.name}" />

<button>Click</button>

<a href="/">Go to Home page</a>

`);

});

app.get("/help", (req, resp) => {

resp.send([

{

name:'Peter',

email:'peter@test.com'

},

{

name:'Bruce',

email:'bruce@test.com'

}

]);

});

app.listen(5000);

🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪

🡪21. Make HTML page

🡪html page ko kaise display kr skte hai 🡪 node js application me

🡪 how html tags

🡪show JSON data

🡪Link pages

🡪make folder for html files and access it.

🡪Make html files

🡪Load html files

🡪Interview questions

🡪create folder and name it public 🡪 about.html pages

🡪About.html

<doctype html!>

<head>

<style>

</style>

</head>

<body>

<h1>this is about ppage</h1>

</body>

</html>

🡪Index.js

const express = require(“ ”);

const path = require(“path”);

const app = express();

const publicpath = path.join(\_\_dirname, ‘public’);

app.use(express.static(publicPath));

app.listen(5000);

output 🡪 localhost:5000/about.html

about page

home.html

<head>

<style>

</style>

</head>

<body>

<h1>this is home page</h1>

</body>

</html>

Outout 🡪

Localhost:5000/home.html

Home page

make root wala page

index.html page bna lete hai wo apne app hi access ho jata hai

localhost:5000

output 🡪 index wala page show hoga

🡪path wala module kis kam me aata hai

ye hmare project ke folder ke access krne me help krta hai

humko koi bhi path chahiye 🡪 public 🡪 uske undar ka uske bahar ka path chahiye

sare ke sare path wale module ke help se leskte ho

🡪static

static method what do 🡪 static pages ko load krta hai

static content ko load krta hai

🡪🡪🡪🡪

Main folder 🡪 public 🡪about.html, help.html

Index.html

Index.html

const express = require('express');

const path = require('path');

const app = express();

const publicPath=path.join(\_\_dirname,'public')

app.use(express.static(publicPath));

app.listen(5000);

Help.html

<!DOCTYPE html>

<html lang="en">

<head>

<title>Help Page</title>

<style>

h1{

color: red;

}

</style>

</head>

<body>

<h1>Help Page</h1>

</body>

</html>

🡪🡪🡪🡪

22. Remove extension from URL and 404 Page

🡪urls se extension kaise remove kr skte hai

Localhost:5000/about.html 🡪 .html remove

🡪urls or page dono me alag alag kis tarike se kr skte hai

🡪galat urls krne se 404 page shows krane honge

🡪Remove extension from urls

🡪Apply get method

🡪Remove an extension from urls

🡪Make 404 pages

🡪Apply 404 pages

Localhost:5000/home.html 🡪 .html remove krna hai urls

Urls or page dono me alag alag kaise kr skte hai

Make 404 page 🡪 galat urls ke liye specific pages

Index.js

const express = require(‘express’);

const path = require(“path”);

const app = express();

const publicPath = path.join(\_\_dirname, ‘public’);

app.get(“ ”, (\_\_, resp) => {

resp.sendFile(${publicPath}/index.html);

});

app.get(“/about ”, (\_\_, resp) => {

resp.sendFile(${publicPath}/about.html);

})

app.get(“ /help”, (\_\_, resp) => {

resp.sendFile(${publicPath}/help.html);

})

App.listen(5000);

localhost:5000

home page

localhost:5000/about

about page

localhost:5000/help

help page

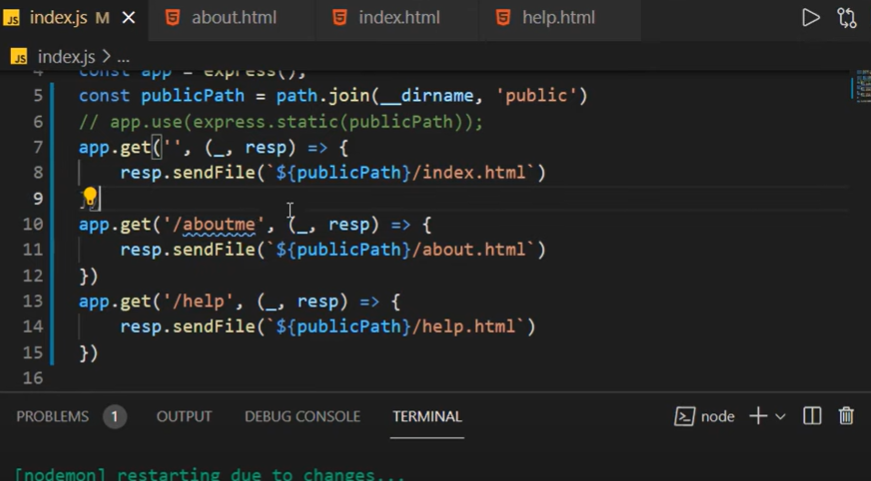
agar koi bhi match nah o to ye wala dikh jaye

app.get(“ \* ”, (\_\_, resp) => {

resp.sendFile(${publicPath}/pagenotfound.html);

})

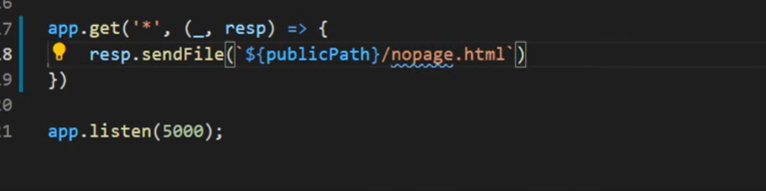
🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪



🡪localhost:3000/about 🡪 about.html likhne ki jarurat nhi hai

🡪About wala page show hoga

🡪koi bhi galat urls rhega to



🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪🡪

23. EJS Template Engine

🡪template engine

🡪what is template engine

🡪install ejs template package

🡪setup dynamic routing

🡪make dynamic page

🡪interview question

🡪ejs dynamic pages bnane me kam aate hai

dynamic page 🡪 static page

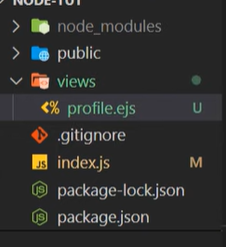
static pages 🡪 simple html pages

dynamic pages🡪jab data database se udh ke aata hai 🡪🡪🡪 sari ki sari data base se udh ke aa rhi hai to wo ek dynamic page hota hai

* 🡪🡪🡪🡪
* s node package manager

<https://www.npmjs.com/package/ejs>

🡪 Folder structure 🡪 view pages 🡪 by default configuration



Views 🡪profile.js

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Profile Page</title>

</head>

<body>

<h1>Welcome, <%= user.name %></h1>

<h3><%= user.email %></h3>

<h3><%= user.country %></h3>

</body>

</html>

🡪🡪

const express = require('express');

const path = require('path');

const app = express();

const publicPath=path.join(\_\_dirname,'public')

app.set('view engine','ejs');

app.get('',(\_,resp)=>{

resp.sendFile(`${publicPath}/index.html`)

});

app.get('/profile',(\_,resp)=>{

const user={

name:'Peter',

email:'peter@test.com',

country:'USA'

}

resp.render('profile',{user})

});

app.get('/contact',(\_,resp)=>{

resp.sendFile(`${publicPath}/about.html`)

});

app.get('/help',(\_,resp)=>{

resp.sendFile(`${publicPath}/help.html`)

});

app.get('\*',(\_,resp)=>{

resp.sendFile(`${publicPath}/nopage.html`)

});

🡪🡪🡪🡪🡪🡪🡪

🡪ejs template package

<https://www.npmjs.com/package/ejs/v/3.1.6>

Index.js  
const express = require();  
const path = require(‘path’);

const app = express();

const publicPath = path.join(\_\_dirname, ‘public’);

app.set(‘view engine’, ‘ejs’);

app.get(‘ ’, (\_, resp) => {

resp.sendFile(`${publicPath}/index.html `);

})

app.get(“/profile ”, (\_\_, resp) => {

const user = {

name : “anil sidhu”,

email : [anil@gmail.com](mailto:anil@gmail.com),

city : “noida”

}

resp.render(‘profile’, {user});

})

app.get(“ /help”, (\_\_, resp) => {

resp.sendFile(${publicPath}/help.html);

})

App.listen(5000);

🡪file folder structure

🡪Public(folder)

🡪views(folder)🡪 by default configuration  
 profile.ejs(file)

🡪🡪 profile.ejs(file)

<doctype html>

<head>

<style></style>

</head>

<body>

<h1>welcome <% = user.name %></h1>

<h1>email <% = user.email%></h1>

<h1>city <% = user.city %></h1>

<h1>profile page</h1>

</body>

<html>

Output 🡪

Welcome anil sidhu

Email :anil@gmail.com

City : noida

24. Dynamic Page with ejs

🡪I will check this topic later 🡪 because middleware is important now

🡪dynamic page

🡪how to make a loop in ejs

🡪make header file

🡪show common header file

🡪interview question

Index.js  
const express = require();  
const path = require(‘path’);

const app = express();

const publicPath = path.join(\_\_dirname, ‘public’);

app.set(‘view engine’, ‘ejs’);

app.get(‘ ’, (\_, resp) => {

resp.sendFile(`${publicPath}/index.html `);

})

app.get(“/profile ”, (\_\_, resp) => {

const user = {

name : “anil sidhu”,

email : [anil@gmail.com](mailto:anil@gmail.com),

city : “noida”,

skills : [‘php’, ‘js’, ‘c++’]

}

resp.render(‘profile’, {user});

})

app.get(“ /help”, (\_\_, resp) => {

resp.sendFile(${publicPath}/help.html);

})

App.listen(5000);

🡪🡪🡪

profile.ejs(file)

🡪🡪 profile.ejs(file)

<doctype html>

<head>

<style></style>

</head>

<body>

<h1>welcome <% = user.name %></h1>

<h1>email <% = user.email%></h1>

<h1>city <% = user.city %></h1>

<ul>

<% user.skills.forEach ((item) => ) { %>

<li> <% = item %> </li>

< % }) %>

</ul>

<h1>profile page</h1>

</body>

<html>

Output 🡪

Welcome, peter

[peter@test.com](mailto:peter@test.com)

USA

Php

Js

C++

Folder structure

Index.js

views(folder)

🡪profile.ejs

🡪login.egs

public(folder)

🡪about.html

🡪help.html

🡪index.html

🡪nopage.html

🡪login.egs

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>This is a login page</h1>

</body>

</html>

const express = require();  
const path = require(‘path’);

const app = express();

const publicPath = path.join(\_\_dirname, ‘public’);

app.set(‘view engine’, ‘ejs’);

app.get(‘ ’, (\_, resp) => {

resp.sendFile(`${publicPath}/index.html `);

})

app.get(“/profile ”, (\_\_, resp) => {

const user = {

name : “anil sidhu”,

email : [anil@gmail.com](mailto:anil@gmail.com),

city : “noida”,

skills : [‘php’, ‘js’, ‘c++’]

}

resp.render(‘profile’, {user});

})

app.get(‘/login’, (\_\_, resp) => {

resp.render(‘login’);

})

app.get(“ /help”, (\_\_, resp) => {

resp.sendFile(${publicPath}/help.html);

})

App.listen(5000);

output: localhost/login

this is login page

//yha par common header chahiye

//common header krne ke liye ..kahi pe bhi file bna lo views 🡪 folder ke undar

🡪folder structure

🡪views

🡪common(folder)

🡪header.ejs

🡪login.ejs

🡪profile.ejs

🡪header.ejs

<nav>

<h3>header file </h3>

</nav>

🡪login.ejs

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<%- include(`common/header`) %>

<h1>This is a login page</h1>

</body>

</html>

//<%- include(`common/header`) %> 🡪 add hypen

Output

localhost:5000/login

Header File

This is a login page

we can also add this common page 🡪 in profile page as well

//<%- include(`common/header`) %> 🡪 add hypen

25. express js Middle Ware

What are middle ware

How to make a middleware

Apply middleware on routes

Types of middleware

Interview questions

Middleware ko routes ke uppar apply krte hai

Middleware ko hum bas routes ke sath hi use kr skte hai

Middlesware ye kuch functions hote hai 🡪 jo routes ke sath hi use hote hai

Eski help se jo request or response hota hai 🡪 usko access kr skte hai

Or usko modify kr skte hai

Bahut bar uthentication check krni hoti hai 🡪 user logged in hai yan hi hai 🡪 wo hum middle ware ke undar kr skte hai 🡪 specific country ke undar hamari site block krni hoti hai

Jaha pe bhi hume request or response ke undar kuch changes krne hote hai 🡪 wha pe middleware use krte hai

Request or response me changes krne hai to route me kr lo…middle ware me kyu krne hai…..????

Man lo ki meri application ke undar chahe wo website or chahe wo apis wale application ke undar 50 route hai..agar hum routes ke undar har bar check krne lg jau to ..same code 50 bar likhna pdega..

Middleware ke sath kaisa hai ..ek bar mai middleware bna skta hu..or usko mai bar bar use kr skta hu.

Folder structure

Index.js

const express = require(‘express’);

const app = express();

const reqFilter = (req, resp, next) => {

console.log(“request filter”);

next();

}

app.use(reqFilter);

app.get(‘ / ’, (req,resp) => ){

resp.send(‘welcome to home page’);

})

app.get(‘ / users’, (req,resp) => ){

resp.send(‘welcome to users page’);

})

app.listen(5000);

🡪output

localhost:5000

Welcome to Home Page

🡪middleware ke liye hum separate file bhi rkh skte hai🡪abhi same file me bna lete hai

🡪types of middleware

Application level middleware

Router level middleware

ErrorHandling middleware

Build – in middleware

Third party middleware

localhost:5000

welcome to home page

ek user ka age 18 se jyada hai 🡪 to hi hamari website ko access kr paye otherwise wo na kr paye

sbse phle ye check krte hai ki wo age dal bhi rha hai ki nhi dal rha user🡪 request parameter ke undar

age urls ke undar dalwa lete hai…request parameter ke liye.

const reqFilter = (req, resp, next) =>{

if(!req.query.age){

resp.send(“Please Provide Age”);

}

Else{

next();

}

}

Output

🡪localhost:5000

Please Provide Age

🡪localhost:5000/users

Please Provide Age

🡪localhost:5000/?age = 10

Welcome to home page

age check bhi krni hai uski age 18 honi chahiye

const reqFilter = (req, resp, next) => {

if(!req.query.age){

resp.send(“Please Provide Age”);

}

Else if (req.query.age<18){

Resp.send(“you can not access this page”);

}

Else{

next();

}

}

Output 🡪

Condition1

localhost:5000

please provide age

Condition2

localhost:5000/?age = 10

you can not access this page

Condition3

localhost:5000/?age = 20

welcome to home page

26. Route level Middleware express js

🡪route level middleware

🡪apply middleware on single route

🡪make middleware in different file

🡪apply middleware in the group of route

jab ek bar hum middle ware bna lete hai or use krte hai 🡪 wo sare ke sare route ke uppar ek bar apply ho jata tha 🡪

man lijiye humare pass 50 route hai unme se hume ek route uppar 🡪 two route ke uppar 🡪or 5 route ke uppar middleware apply krna hai 🡪 to hum kis tarike se kr skte hai

pichle wale video me humne same file me middleware bnaya tha or use kiya tha

different file me middleware rkh ke usko kiss tarike se use kr skte hai

middle ware group of route ke uppar lagana hai..50 me se 10, 15 20 aise lagana hai

🡪what is route level middleware

Aise middleware jo single route ke undar bhi kam krenge

Routing ke group ke undar bhi kam krenge..50 me se 10, 15 20 aise lagana hai

Sare ke sare middleware cover krne hai 🡪 sare ke sare route cover krne hai 🡪 ek middleware ke sath me 🡪 ek middleware sare ke sare route me bhi lg jayega

Pichle video me 🡪 application level middleware 🡪 ek specific route or specific group of route ke undarn hi lgta tha.

Pure ke pure application me jitne bhi route honge 🡪 sbke uppar apply hota tha…

But now route level middleware hai wo ek route ke undar bhi lg skta hai 🡪 group of route me bhi lg skta hai 🡪 or sare ke sare routes ke undar bhi lg skta hai

Ek single route ke uppar 🡪or group of route ke uppar 🡪 yap hir sab ke sab route ke uppar ek middleware kiss tarike se lga skte hai

Es video ko bad me ek barr or ache se dekhenge

27. Install MongoDB

🡪download DB

🡪install Mango DB

🡪set environment for mango

🡪mango db compass tool

🡪interview question

🡪browser download mango db

🡪difference between mango db and mysql

🡪mango db ka environment setup krna 🡪 gui too ka name

🡪Cmd 🡪 show db

🡪mango compass 🡪 gui 🡪graphic user interface

🡪28 🡪mango db basic -1

🡪what is mango db

🡪mango db and mysql

🡪mango db basic command

🡪mango db is a no sql database

🡪the data stored in a collection

🡪collection do not have rows and columns

🡪data is stored in the form of object

🡪mango db np sql database hai 🡪 eske undar data hai wo tables ke undar store nhi krte ,, collection ke undar store krte hai

🡪collection ke undar rows or columns nhi hote

🡪to kiss form me data store hota hai🡪 object ke form me

🡪object kya hota hai

🡪we can create array of an object or same concepts yha pe apply hota hai 🡪 waise hi object yha pe bnte hai

Const person = [

{

Name : “monika”,

Skills : “javascript”

}]

🡪object kya hota

🡪we can create array of an object or same concepts ypa pe apply hota hai 🡪waise hi objects yha pe bnte hai

const person = {

Name : “monika”,

Skills : “javascript”

}]

🡪no sql ka matlab kya hai 🡪 oracle 🡪 mysql 🡪 mysql server 🡪 sare ke sare structured query language wale databases hote hai 🡪 proper structure hota hai 🡪 jiske undar queries apply krte hai

🡪mango db 🡪 no sql 🡪 eska apna koi structure nhi hota 🡪

🡪sometimes if we take colums and rows 🡪 sometimes we need extra colums and rows 🡪 that time no sql is perfect data would be

🡪data store hota hai collection ke undar 🡪 collection ke undar rows or columns nhi hote

🡪Jab ek table bnate hai to uske undar rows and columns hote hai 🡪 yha pe nhi hote

🡪data object ke form me store hote hai

🡪sql 🡪row column

Mango db 🡪

Const person = [{

Name : “monika”,

Skills : “javascript”

}]

🡪1. Cmd 🡪 mango

🡪mango db compass

🡪window command line

🡪mango db compass

🡪cmd 🡪show dbs

🡪create database 🡪 database name 🡪 collection name

🡪create database using command line 🡪 mango db compass 🡪 MANGOSH

🡪use youtube

🡪jab tak database me koi bhi collection nhi hoti to yha pe youtube nhi dikhta

🡪db.createCollection(‘videos’);

🡪now created database

🡪show dbs

🡪collection check krni hai

🡪show collection

🡪db.createCollection(“playlist”);

🡪delete 🡪 db.videos.drop();

🡪show dbs

🡪db.dropDatabase();

🡪db

🡪use admin

🡪db

🡪use admin

29. mango db crud operation

🡪crud operation in mango db

🡪how to insert data collection

🡪how to check inserted data

🡪how to update data

🡪how to delete data

🡪interview questions

🡪in upcoming videos we will learn 🡪 database connectivity 🡪 authentication 🡪 apis bnana 🡪 installation🡪 basic operations 🡪 crud operations

🡪interview question

🡪How to use

🡪mango db compass use kr lete hai 🡪 GUI tool

🡪command line se kr lo

🡪crud operation 🡪 create database 🡪e-commerce(database name) 🡪 products(collection)

🡪mango db compass 🡪 MANGOSH 🡪

🡪insert data 🡪add data / command line

Go to product table 🡪 insert data krna hai 🡪 MANGOSH

Mangosh 🡪 use e-comm

E-comm🡪db.products.insertOne({name : “m 40”,

Brand : “samsung”,

Price : 100,

Category : “mobile” });

Acknowledge true 🡪 insert ho gyi hai

🡪 check data using command line

🡪mango db compass 🡪 MANGOSH

🡪MANGOSH 🡪 db.products.find();

🡪now we can see data

🡪update data

🡪mango db compass 🡪 MANGOSH 🡪

🡪e-comm🡪db.products.updateOne({name : ‘m 40’}, {$set : brand : “oppo”});

🡪Delete data

🡪mango db compass 🡪 MANGOSH

🡪e-comm 🡪db.products.deleteOne({brand : “samsung”});

30 : Connect MANGO DB WITH NODE JS

🡪CONNECT mango db with node js

🡪install mango db package

🡪show data from mango db

🡪intervew question

🡪browser mango db npm

Es package me aisa code likha hota hai jo ki node js ko mango db ke sath connect

🡪npm I mango db

🡪index.js

Const {MangoClient} = require(‘mangodb’);

Or

Const MangoClient = require(‘mangodb’).MangoClient;

const url = ‘mangodb://localhost:27017’;

const database = ‘e-comm’;

const client = new MangoClient(url);

async function getData(){

let result = await client.connect(); //promise return krta hai

let db = result.db(database);

let collection = db.collection(‘products’);

let response = await collection.find({}).toArray();

console.log(response);

}

getData();

Run 🡪 sare data object form me show honge

🡪Interview question

🡪kya hum do database ko ek sath connect kr skte hai 🡪 yes

31 🡪 Read Data From Mango DB

🡪read data from mango db

🡪make file for db collection

🡪Handle Promises

🡪interview question

32 🡪 Insert Data From Mango DB